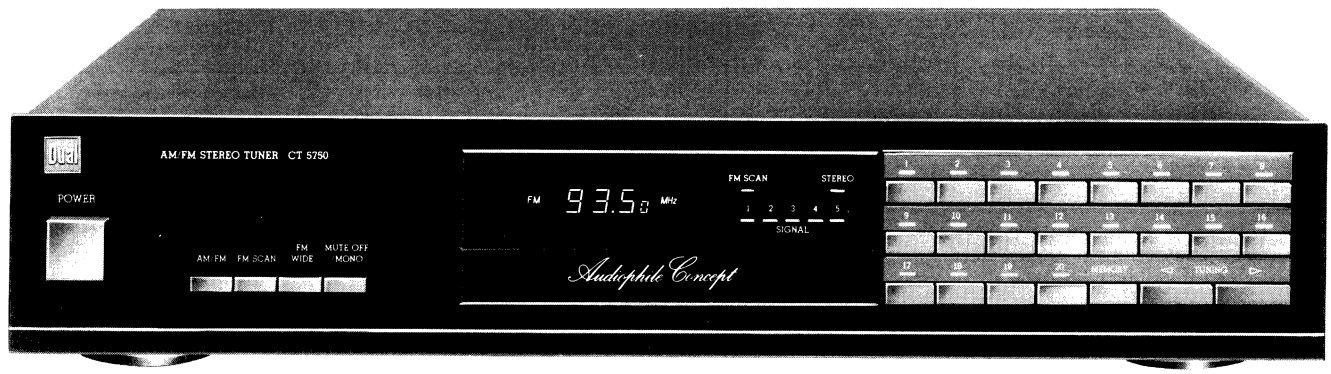
Dual

Service-Anleitung
Service Manual
Instructions de Service

CT 5750



Technische Daten (typische Werte)	**Specifications** (typical values)	**Caractéristiques techniques** (valeurs types)	**Dati tecnici** (valori tipici)	**Dual CT 5750**
Empfangsbereiche FM (UKW) AM (MW) AM (USA/Canada)	**Reception wavebands** FM (VHF) AM (MW) AM (US/Canadian model)	**Games de fréquences** FM (OC) AM (OM) AM (Modèle USA/Canada)	**Campi di ricezione** FM (OUC) AM (onde medie) AM (Stati Uniti/Canada)	 87 – 108 MHz 522 – 1611 kHz 520 – 1710 kHz
Empfindlichkeit (an 75 Ω) FM – Mono (26 dB) FM – Stereo (46 dB)	**Sensitivity** (at 75 Ω) FM – mono (26 dB) FM – stereo (46 dB)	**Sensibilité** (à 75 ohms) FM – Mono (26 dB) FM – Stéréo (46 dB)	**Sensibilità** (su 75 ohm) FM – mono (26 dB) FM – stereo (46 dB)	 0,8 µV 28 µV
Trennschärfe FM stat./dyn.	**FM selectivity** stat./dyn.	**Sélectivité** FM stat./dyn.	**Selettività** FM stat./din.	80/70 dB
Geräuschspannungsabstand	**Signal/noise ratio**	**Rapport signal/bruit**	**Rapporto segnale disturbo**	72 dB
Netzspannung Model Europa Model USA/Kanada Model UK	**Mains voltage** European model US/Canadian model UK model	**Voltage secteur** Modèle Europe Modèle USA/Canada Modèle Royaume-Uni	**Tensione di rete** modello Europa modello Stati Uniti/Canada modello GB	 220 V/50 Hz 120 V/60 Hz 240 V/50 Hz
Maße (Breite × Höhe × Tiefe)	**Dimensions** (width × height × depth)	**Dimensions** (largeur × hauteur × profondeur)	**Dimensioni** (larghezza × altezza × profondità)	 440 × 92 × 303 mm

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921 619 0491

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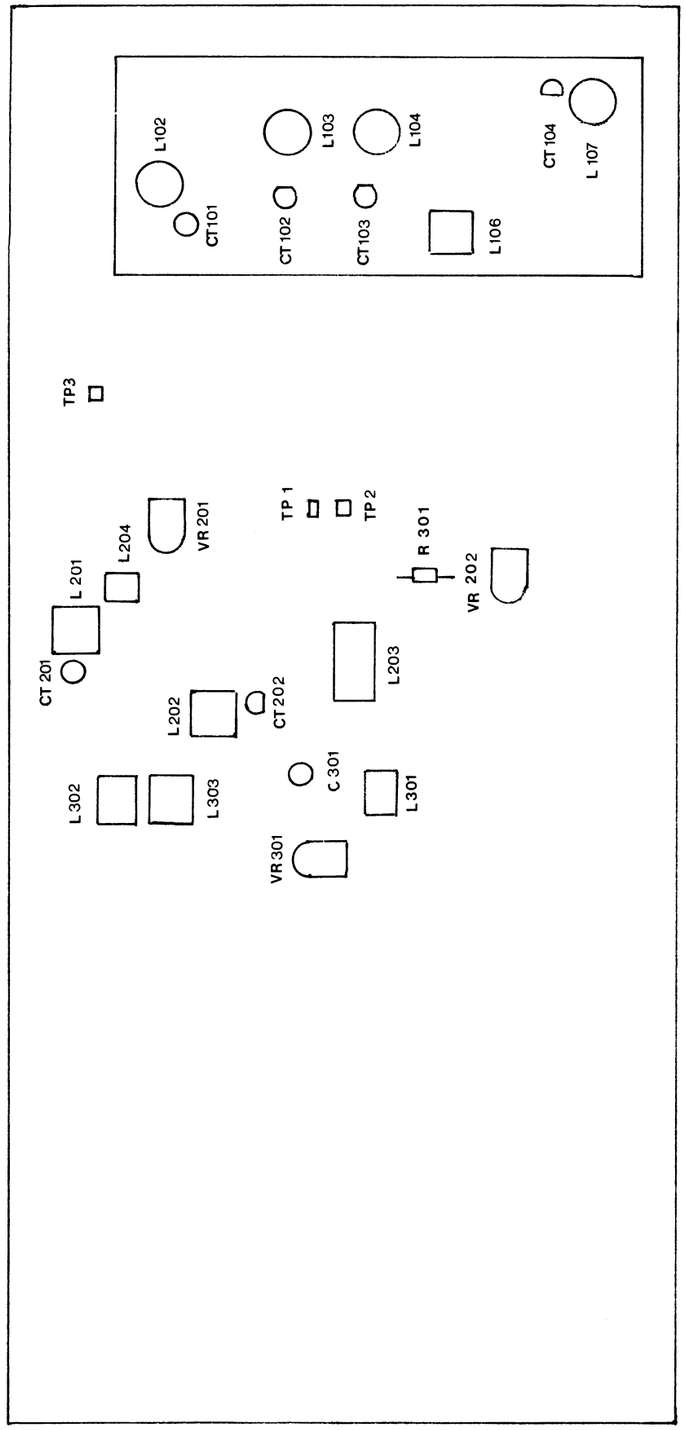
Abgleichanleitung CT 5750

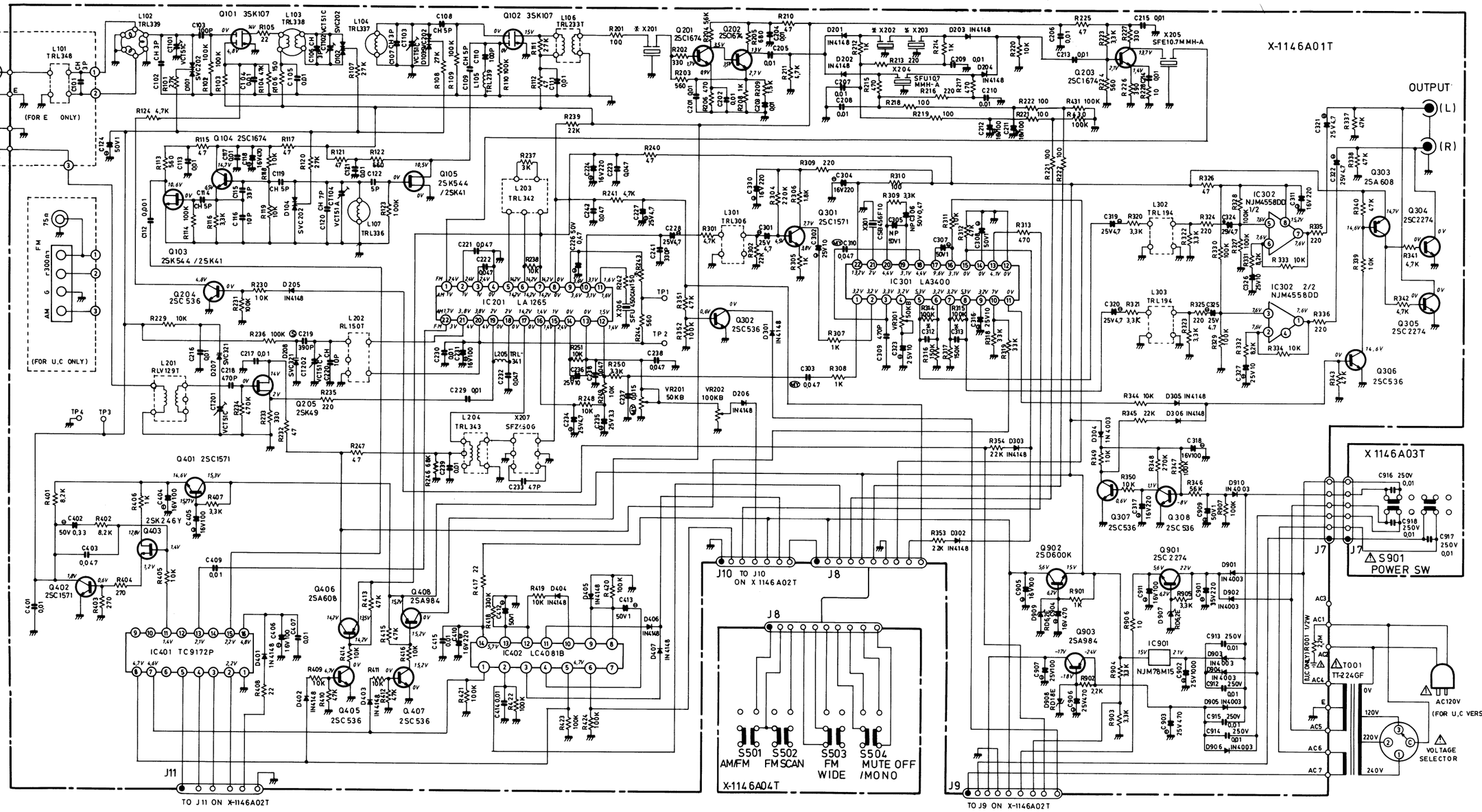
Signalquelle	Einstellung Gerät	Einstellung Signalquelle	Meßgerät Anschluß	Abgleichposition	Abgleich, Bemerkung
FM-Oszillator					
	87,5 MHz		DC Voltmeter an E und TP 3	L 107	1,5 V DC ± 0,1 V
	108 MHz			CT 104	9,0 V DC ± 0,1 V
				Abgleich wiederholen	
FM–ZF, Vorkreis					
FM-Meßsender an 75 Ohm Antenneneingang	Mono-Taste: Ein Senderfreie Frequenz ca. 98 MHz	0–1 mV Hub ± 40 kHz Mod. 1 kHz ca. 98 MHz auf Deckung	Klirrfaktormeßbrücke Oszilloskop an NF-Ausgang	L 106	NF-Maximum
				L 203 A	
				L 203 B	NF und Klirrfaktor Minimum
	90 MHz	ca. 90 MHz auf Deckung		L 102, L 103, L 104	NF-Maximum
	105 MHz	ca. 105 MHz auf Deckung		CT 101, CT 102, CT 103	
				Vorkreisabgleich wiederholen	
FM–ZF (Feinabgleich)					
Antenne an 75 Ohm Antenneneingang	Starken FM-Sender auf seiner Sollfrequenz empfangen		DC-Voltmeter an: TP 1–TP 2	L 203 B	DC-Maximum und DC-Minimum ermitteln
				L 203 B	Spannungsmitte einstellen
				L 203 A	0 V ± 1 mV DC
				Abgleich wiederholen	
Mono-, Stereo- und Muting-Übergang, Signalanzeige, Kanaltrennung					
FM-Meßsender an 75 Ohm Antenneneingang	Senderfreie Frequenz ca. 98 MHz Mono-Taste: Aus	ca. 98 MHz auf Deckung Hub ± 40 kHz, Mod. 1 kHz 19 kHz Pilot ein 6 µV	NF-Voltmeter, Oszilloskop an NF-Ausgang	VR 201	Mono-, Stereo- und Mutingübergang einstellen
				VR 202	Letzte Signal LED muß aufleuchten
		1 mV		VR 301	Maximale Kanaltrennung
Unterdrückung Pilottonreste (19 kHz)					
FM-Meßsender an 75 Ohm Antenneneingang	Senderfreie Frequenz ca. 98 MHz Mono-Taste: Aus	ca. 98 MHz auf Deckung 1–2 mV, 19 kHz Pilot ein	NF-Voltmeter Oszilloskop an NF-Ausgang	L 302 (l.K)	Minimum
				L 303 (r.K)	
LPF (114 kHz)					
NF-Generator	Aus	114 kHz 1 Vss an R 301	Oszilloskop an C 301	L 301	Minimum
AM-Oszillator					
	522 kHz		DC-Voltmeter an E – TP 3	L 202	1,4 V DC ± 0,1 V
	1611 kHz			CT 202	9,0 V DC ± 0,1 V
AM–ZF, Vorkreis					
AM-Meßsender an AM-Antenneneingang	999 kHz	10 µV–1 mV, 1 kHz, Mod. 30 % 999 kHz	NF-Voltmeter Oszilloskop an NF-Ausgang	L 204	Maximum
	594 kHz	594 kHz		L 201	
	1404 kHz	1404 kHz		CT 201	

Tuning Instructions for CT 5750

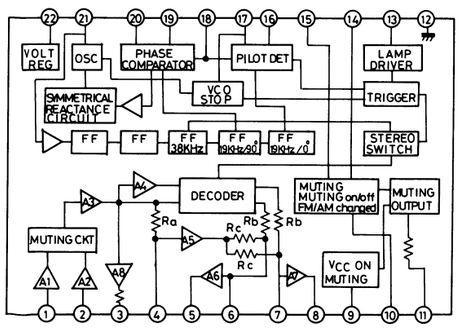
Signal source	Equipment setting	Signal source setting	Connection of measuring instrument	Item to be tuned	Tuning, Remarks
FM oscillator					
	87.5 MHz		DC voltmeter to E and TP 3	L 107	1.5 V DC ± 0.1 V
	108 MHz			CT 104	9.0 V DC ± 0.1 V
				Repeat tuning	
FM IF, input circuit					
FM signal generator to 75-ohm antenna input	Mono key: ON Frequency without transmitters approx. 98 MHz	0 - 1 mV, Shift ± 40 kHz Mod. 1 kHz Tune to approx. 98 MHz	Harmonic detector oscilloscope to AF output	L 106	AF maximum
				L 203 A	
				L 203 B	AF and harmonic distortion minimum
	90 MHz	Tune to approx. 90 MHz		L 102, L 103, L 104	AF maximum
	105 MHz	Tune to approx. 105 MHz		CT 101, CT 102, CT 103	
				Repeat input-circuit tuning	
FM IF (fine tuning)					
Antenna to 75-ohm antenna input	Receive strong FM transmitter at its nominal frequency		DC voltmeter to: TP 1 - TP 2	L 203 B	Determine DC maximum and DC minimum
				L 203 B	Adjust power mean
				L 203 A	0 V ± 1 mV DC
				Repeat tuning	
Transition between monaural, stereo and muting; signal indication, channel separation					
FM signal generator to 75-ohm antenna input	Frequency without transmitters approx. 98 MHz Mono key: OFF	Tune to approx. 98 MHz, Shift ± 40 kHz, Mod. 1 kHz, 19-kHz pilot ON, 6 µV	AF voltmeter, oscilloscope to AF output	VR 201	Set monaural, stereo and muting transition
		1 mV		VR 202	Last signal LED must light up
				VR 301	Maximum channel separation
Suppression of residual pilot frequencies (19 kHz)					
FM signal generator to 75-ohm antenna input	Frequency without transmitters approx. 98 MHz Mono key: OFF	Tune to approx. 98 MHz 1 - 2 mV, 19-kHz pilot ON	AF voltmeter, oscilloscope to AF output	L 302 (left channel)	Minimum
				L 303 (right channel)	
LPF (114 kHz)					
AF generator	OFF	114 kHz 1 Vpp to R 301	Oscilloscope to C 301	L 301	Minimum
AM oscillator					
	522 kHz		DC voltmeter to E - TP 3	L 202	1.4 V DC ± 0.1 V
	1611 kHz			CT 202	9.0 V DC ± 0.1 V
AM IF, input circuit					
AM signal generator to AM antenna input	999 kHz	10 µV - 1 mV, 1 kHz, Mod. 30% 999 kHz	AF voltmeter, oscilloscope to AF output	L 204	Maximum
	594 kHz	594 kHz		L 201	
	1404 kHz	1404 kHz		CT 201	



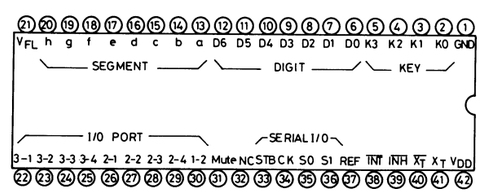
SCHEMATIC DIAGRAM MODEL CT 5750 1/2 NOTE: PARTS AND CIRCUIT SUBJECT TO CHANGES FOR IMPROVEMENTS WITHOUT PRIOR NOTICE.



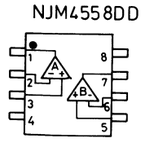
LA3400



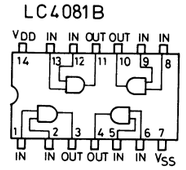
TC9303AN-001

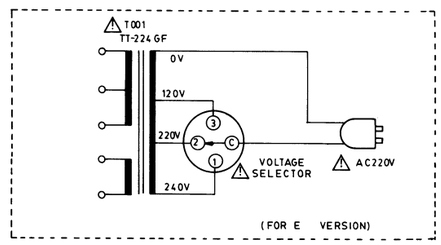

VFL h g f e d c b a D6 D5 D4 D3 D2 D1 D0 K3 K2 K1 K0 GND
SEGMENT
DIGIT
KEY
I/O PORT
SERIAL I/O
3-1 3-2 3-3 3-4 2-1 2-2 2-3 2-4 1-2 Mute NC STB CK SO SI REF INT INH XT XT VDD

NJM4558DD



LC4081B

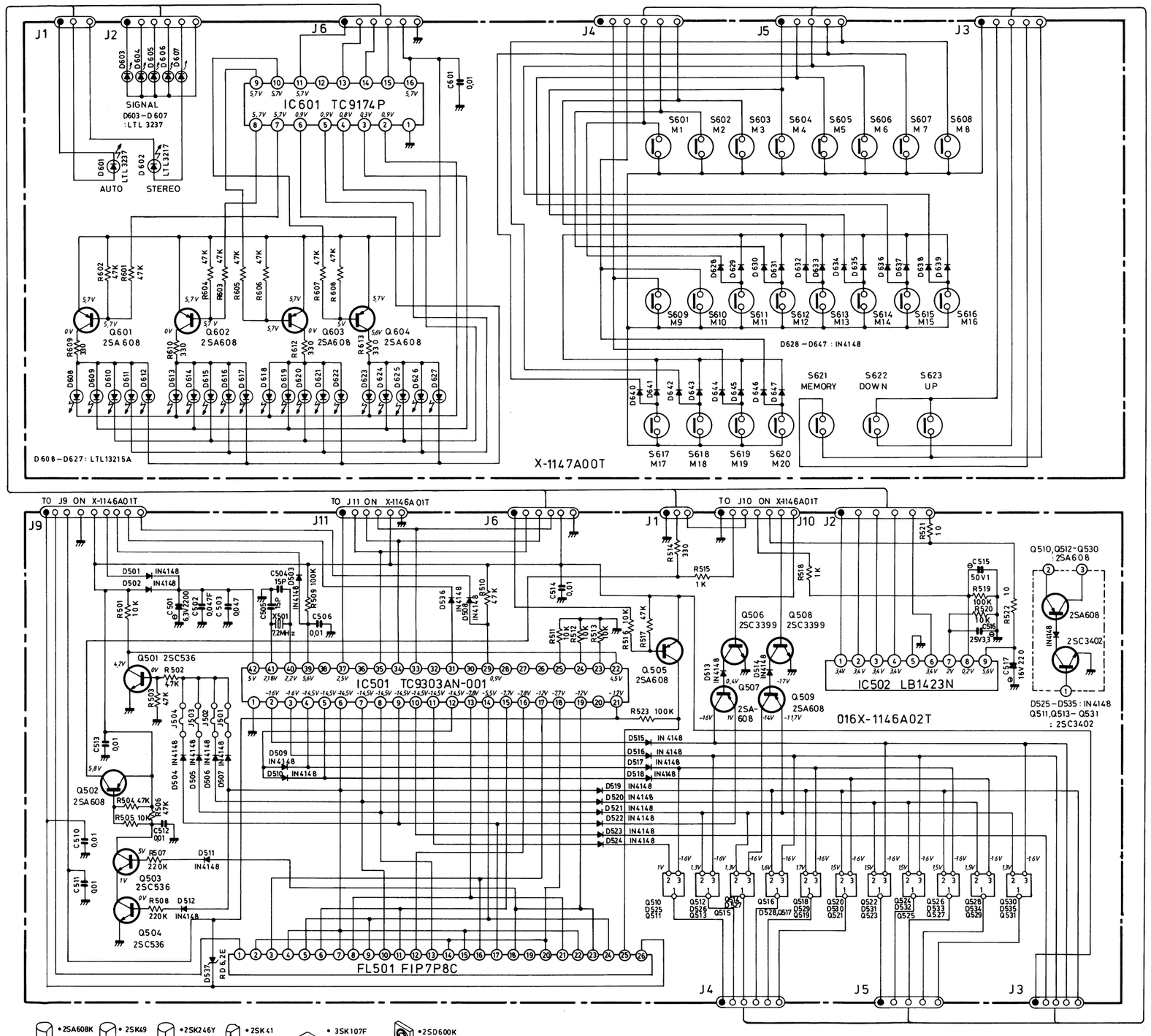




DESTINATION	DE-EMPHASIS	J501	J502	J503	J504
U.S.A	75uS	OPEN	CLOSE	CLOSE	CLOSE
EUROPE	50uS	CLOSE	OPEN	OPEN	CLOSE

DESTINATION	DE EMPHASIS	C312, 313	R243	X201	X202, 203
U.S.A	75uS	Ⓢ 750P	18K	10.7MLH-A	10.7MS 2GY
EUROPE	50 uS	Ⓢ 510P	27K	10.7MMH-A	10.7MS 3GY

SCHEMATIC DIAGRAM MODEL CT5750 2/2



• 2SA608K
• 2SC984K
• 2SC1674
• 2SC536
• 2SC1570
• 2SC2274
• 2SC3402

• 2SK49

• 2SK246Y

• 2SK41
• 2SK544

• 3SK107F

• 2SD600K

• LB1423N

• TC9172P
• TC9174P

• LA3400
• LA1265

• LC4081B

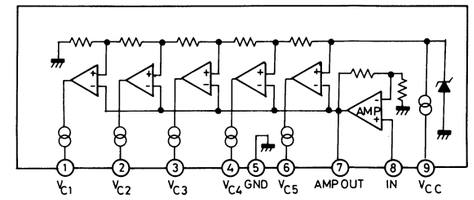
• TC9303AN-001

• NJM 4558DD

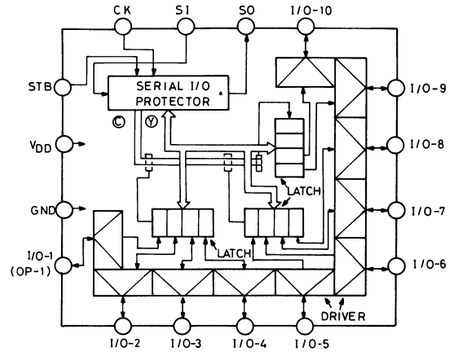
NJM 78M12

1. OUTPUT
2. GND
3. INPUT

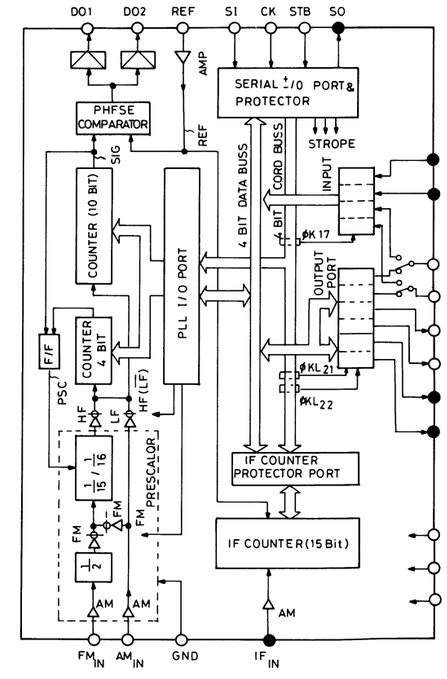
LB1423



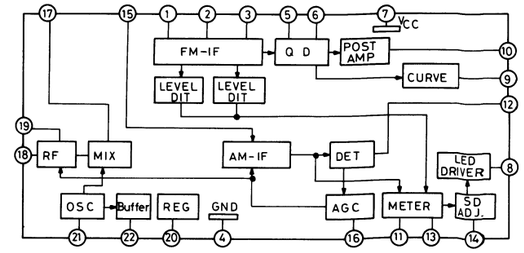
TC9174P



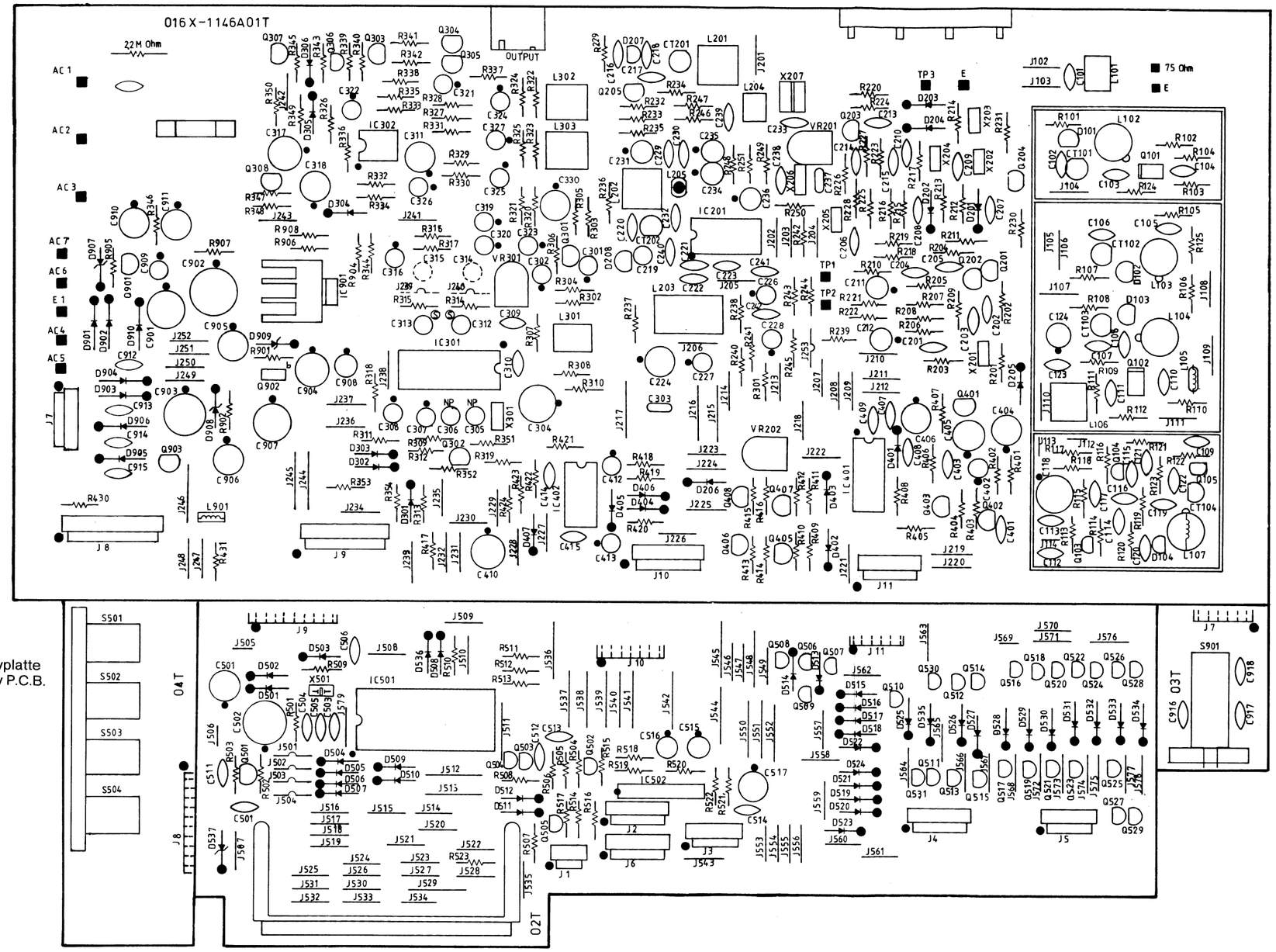
TC9172P



LA1265



Tunerplatte
Tuner P.C.B.


016X-1146A01T
22M Ohm
AC1
AC2
AC3
AC7
AC6
E1
AC4
AC5
OUTPUT
75 Ohm
E
TP3
TP1
TP2
IC302
IC201
IC301
IC401
VR201
VR301
VR202
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Ersatzteile · Replacement parts · Pièces détachées · CT 5750

Pos.	Art.-Nr.	Bezeichnung
1	284 887	Frontblende CT 5750
2	284 519	Fenster
3	283 750	Dual-Zeichen
5	284 488	Taste
6	284 604	Tastenhalter 4-fach
7	284 487	Tastenführung
8	284 880	Druckfeder
8	284 515	Tastenverlängerung
10	284 886	Displayblende
11	284 490	Fenster
12	284 489	Taste 4-fach
13	284 606	Taste 3-fach
15	284 460	Fuß
16	284 448	Knopf
22	284 485	Schalter 4-fach
23	284 484	Netzschalter
24	286 500	Netztrafo
25	284 483	Anschlußklemme
26	284 533	Antennenbuchse
28	283 748	Spannungswahlschalter
30	243 750	Netzkabel Europa
31	283 742	Gehäuseblech
34	286 501	Halter
19		**LED / Tastenplatte**
IC 601	284 618	IC TC 9174
Q 601	284 506	Transistor 2 SA 608 K
bis		
Q 604	284 506	Transistor 2 SA 608 K
D 601	284 495	LED LTL 3227 A
bis		
D 607	284 495	LED LTL 3227 A
D 608	284 496	LED LTL 13215 A
bis		
D 627	284 496	LED LTL 13215 A
D 628	223 906	Diode 1 N 4148
bis		
D 647	223 906	Diode 1 N 4148
S 601	284 486	Schalter
bis		
S 627	284 486	Schalter
20		**Displayplatte**
C 502	284 516	Kondensator 5,5 / 0,047 F
D 501	223 906	Diode 1 N 4148
bis		
D 536	223 906	Diode 1 N 4148
D 537	274 006	Diode RD 6,2
Q 501	269 092	Transistor 2 SC 536 F, G
Q 502	284 506	Transistor 2 SA 608 K
Q 503	269 092	Transistor 2 SC 536 F, G
Q 504	269 092	Transistor 2 SC 536 F, G
Q 505	284 506	Transistor 2 SA 608 K
Q 506	284 511	Transistor 2 SC 3402
Q 507	284 506	Transistor 2 SA 608 K
Q 508	284 511	Transistor 2 SC 3402
Q 509	284 506	Transistor 2 SA 608 K
Q 510	284 506	Transistor 2 SA 608 K
Q 511	284 511	Transistor 2 SC 3402
Q 512	284 506	Transistor 2 SA 608 K
Q 513	284 511	Transistor 2 SC 3402
Q 514	284 506	Transistor 2 SA 608 K
Q 515	284 511	Transistor 2 SC 3402
Q 516	284 506	Transistor 2 SA 608 K
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Q 519	284 511	Transistor 2 SC 3402
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Q 522	284 506	Transistor 2 SA 608 K
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Q 524	284 506	Transistor 2 SA 608 K
Q 525	284 511	Transistor 2 SC 3402
Q 526	284 506	Transistor 2 SA 608 K
Q 527	284 511	Transistor 2 SC 3402
Q 528	284 506	Transistor 2 SA 608 K
Q 529	284 511	Transistor 2 SC 3402
Q 530	284 506	Transistor 2 SA 608 K
Q 531	284 511	Transistor 2 SC 3402
IC 501	284 498	IC TC 9303
IC 502	284 499	IC LB 1423
X 501	284 503	Quarz 7,2 MHz
FL 501	284 497	**Display**

Pos.	Art.-Nr.	Bezeichnung
21		**Tunerplatte**
L 101	284 481	Filter Band Pass
L 102	284 468	Spule FM ANT
L 103	284 467	Spule FM RF
L 104	284 465	Spule FM RF
L 105	284 475	Spule
L 106	284 461	Spule FM IF
L 107	284 464	Spule FH OSC
Q 101	284 514	Transistor 3 SK 107 F
Q 102	284 514	Transistor 3 SK 107 F
Q 103	284 513	Transistor 2 SK 544
Q 104	284 510	Transistor 2 SC 1674 / LC 1674
Q 105	284 513	Transistor 2 SK 544
D 101	284 505	Diode SVC-202 AP
bis		
D 104	284 505	Diode SVC-202 AP
CT 101	284 478	Trimmer
bis		
CT 103	284 478	Trimmer
CT 104	284 479	Trimmer
IC 201	284 502	IC LA 1265
D 201	223 906	Diode 1 N 4148
bis		
D 205	223 906	Diode 1 N 4148
D 207	275 855	Diode SVC 321
D 208	275 855	Diode SVC 321
Q 201	284 510	Transistor 2 SC 1674 / LC 1674
bis		
Q 203	284 510	Transistor 2 SC 1674 / LC 1674
Q 204	269 092	Transistor 2 SC 536 F, G
Q 205	284 512	Transistor 2 SK 49
CT 201	284 478	Trimmer
CT 202	284 478	Trimmer
X 201	284 477	Keramik-Filter
X 202	284 480	Keramik-Filter
X 203	284 480	Keramik-Filter
X 202	284 569	Filter SFE 10,7 MS
X 203	284 569	Filter SFE 10,7 MS
X 204	284 477	Keramik-Filter
X 205	284 477	Keramik-Filter
X 206	284 473	Keramik-Filter
X 207	284 466	Keramik-Filter SFZ 450 G
L 201	284 472	Spule AM ANT
L 202	284 471	Spule AM OSC
L 203	284 469	Spule FM DET
L 204	284 470	Spule AM IF
D 301	223 906	Diode 1 N 4148
bis		
D 303	223 906	Diode 1 N 4148
D 304	282 021	Diode 1 N 4003
D 305	223 906	Diode 1 N 4148
D 306	223 906	Diode 1 N 4148
Q 301	284 509	Transistor 2 SC 1571
Q 302	269 092	Transistor 2 SC 536
Q 303	284 506	Transistor 2 SA 608 K
Q 304	284 508	Transistor 2 SC 2274
Q 305	284 508	Transistor 2 SC 2274
Q 306	269 092	Transistor 2 SC 536 F, G
bis		
Q 308	269 092	Transistor 2 SC 536 F, G
L 301	284 463	Spule MPX
L 302	284 462	Spule FM MPX
L 303	284 462	Spule FM MPX
X 301	284 474	Keramik-Filter
IC 301	283 385	IC LA 3400 N
IC 302	273 253	IC NJM 4558 D-D
Q 401	284 509	Transistor 2 SC 1570 / 1571
Q 402	284 509	Transistor 2 SC 1570 / 1571
Q 403	273 904	Transistor 2 SK 246 Y
Q 405	269 092	Transistor 2 SC 536 F, G
Q 406	284 506	Transistor 2 SA 608 K
Q 407	269 092	Transistor 2 SC 536 F, G
Q 408	284 507	Transistor 2 SA 984
D 401	223 906	Diode 1 N 4148
bis		
D 407	223 906	Diode 1 N 4148
IC 401	284 501	IC TC 9172 P
IC 402	284 500	IC TC 4081
D 901	282 021	Diode 1 N 4003
bis		
D 906	282 021	Diode 1 N 4003
D 907	274 006	Diode RD 6,2
D 908	284 504	Diode RD 18 E
D 909	274 006	Diode RD 6,2
D 910	282 021	Diode 1 N 4003

Änderungen vorbehalten! Subject to change! Sous réserve de modification!

Ersatzteile · Replacement parts · Pièces détachées · CT 5750

Pos.	Art.-Nr.	Bezeichnung
Q 901	284 508	Transistor 2 SC 2274
Q 902	282 002	Transistor 2 SD 600 / EGC 373
Q 903	284 507	Transistor 2 SA 984 K
IC 901	284 587	IC NJM 78 M 15
	284 482	Cinchbuchse

Pos.	Art.-Nr.	Bezeichnung
	284 662	Faltschachtel
	284 790	Styroporeinlage
	283 579	Bedienungsanleitung
	284 603	Antenne
	284 521	Hilfsantenne

Änderungen vorbehalten! Subject to change! Sous réserve de modification!